



## 0343: Knowledge management for a wonderful (computerized) world

**Monday, September 26, 2016      09:30 AM - 09:45 AM**

*Convention Center   - Room W224 G*

**Introduction:** Knowledge intended to manage pest problems throughout the world is continuously being produced on various topics such as classical or conservation biological control, use of natural pesticide plants and biocontrol agents, trap crops, and conservation agriculture. Traditionally, knowledge is communicated using a diversity of media such as publications, reports, databases, videos and websites. To answer a question such as the potential impacts and outcomes of invasions by alien species on the populations existing in a landscape, the challenge is to extract qualitative and semi-quantitative knowledge from those sources, compile it, and identify conflicts between different items of knowledge.

**Methods:** Building knowledge bases using a semantic network is the modelling approach method used to represent knowledge and manage it.

**Results:** Work carried out using this methodology has enabled the construction of knowledge bases on (a) food webs of cereal stem borers in Africa (RAP), (b) pest control in the sugarcane agrosystem using natural ecological interactions in relation to cultural practices (DECIPESTS), and (c) natural pesticide plants in Sub-Saharan Africa. Initially built to answer specific questions, these knowledge bases can be composed using this modelling approach. For instance, RAP combined with DECIPESTS enables the mapping of wild and cultivated plants that can host sugarcane pests of economic interest.

**Conclusion:** By crossing thematic frontiers in entomology, knowledge management is a key solution for establishing multidisciplinary.

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